

IN THE CLAIMS

1. – 70. (Canceled)

71. (Currently Amended) An optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and an optical element which has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device; and

a memory configured to store said output signal.

72. (Currently Amended) An optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and an optical element which has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device;

a memory configured to store said output signal; and

a view finder function for determining an image pickup range.

73. (Currently Amended) An optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and a reflective type optical element which has a variable optical characteristic;

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an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device;

a memory configured to store said output signal; and

a ~~view~~ finder function for determining an image pickup range.

74. (Currently Amended) An optical apparatus comprising:

an optical system comprising a reflective type optical element which has an optical surface having no axis of rotational symmetry ~~asymmetrical with regard to an optical axis~~ and has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device;

a memory configured to store said output signal; and

a ~~view~~ finder function for determining an image pickup range.

75. (Currently Amended) An optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and an oblique incidence type reflective optical element which has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display device constructed and arranged to display an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device;

a memory configured to store said output signal; and

a ~~view~~ finder function for determining an image pickup range.

76. (Currently Amended) An optical apparatus comprising:

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an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and a folded optical axis;
an image pickup device constructed and arranged to pick up an image formed by said optical system;
a display function for displaying an image which is picked up;
a microprocessor configured to process an output signal from said image pickup device;
a memory configured to store said output signal; and
a ~~view~~ finder function for determining an image pickup range.

77. (Currently Amended) An optical apparatus to be manufactured by lithography comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and an optical element which has a variable optical characteristic;
an image pickup device constructed and arranged to pick up an image formed by said optical system;
a display function for displaying an image which is picked up;
a microprocessor configured to process an output signal from said image pickup device;
a memory configured to store said output signal; and
a ~~view~~ finder function for determining an image pickup range.

78. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 72 through 77, further comprising:

an infrared cut filter.

79. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 72 through 77,

wherein at least one of said image pickup device, said optical surface which has no axis of rotational symmetry ~~is asymmetrical with regard to the optical axis~~ and said optical element having the variable optical characteristic has an infrared cut filter function.

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80. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 72 through 77, further comprising:

an optical element or an optical member which is manufactured by molding a plastic material, a glass material or the like.

81. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 72 through 77,

wherein at least one of said display device, ~~said view~~ a finder device with a finder function, said optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to the optical axis~~ and said optical element having the variable optical characteristic is manufactured by molding a plastic material, a glass material or the like.

82. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 72 through 77,

wherein said optical surface which has no axis of rotational symmetry ~~is asymmetrical with regard to the optical axis~~ is a free curved surface.

83. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 72 through 77, further comprising:

a diffractive optical element.

84. (Currently Amended) ~~A telephone device comprising an~~ An optical apparatus having a telephone function, said optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and an optical element which has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device; and

a memory configured to store said output signal.

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85. (Currently Amended) ~~A telephone device comprising an~~ An optical apparatus having a telephone function, said optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and a reflective type optical element which has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device; and

a memory configured to store said output signal.

86. (Currently Amended) ~~A telephone device comprising an~~ An optical apparatus having a telephone function, said optical apparatus comprising:

an optical system comprising a reflective type optical element which has an optical surface having no axis of rotational symmetry ~~asymmetrical with regard to an optical axis~~ and has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device; and

a memory configured to store said output signal.

87. (Currently Amended) ~~A telephone device comprising an~~ An optical apparatus having a telephone function, said optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and an oblique incidence type reflective optical element which has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device; and

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a memory configured to store said output signal.

88. (Currently Amended) ~~A telephone device comprising an~~ An optical apparatus having a telephone function, said optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and a folded optical axis;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device; and

a memory configured to store said output signal.

89. (Currently Amended) ~~A telephone device comprising an~~ An optical apparatus having a telephone function, said optical apparatus comprising:

an optical system comprising an optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to an optical axis~~ and an optical element which has a variable optical characteristic;

an image pickup device constructed and arranged to pick up an image formed by said optical system;

a display function for displaying an image which is picked up;

a microprocessor configured to process an output signal from said image pickup device; and

a memory configured to store said output signal.

90. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 84 through 89, further comprising:

an infrared filter.

91. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 84 through 89,

wherein at least one of said image pickup device, said optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to the optical axis~~ and

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said optical element having the variable optical characteristic has an infrared cut filter function.

92. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 84 through 89, further comprising:

an optical element or an optical member which is manufactured by molding a plastic material, a glass material or the like.

93. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 84 through 89,

wherein at least one of said image pickup device, said optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to the optical axis~~ and said optical element having the variable optical characteristic is manufactured by molding a plastic material, a glass material or the like.

94. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 84 through 89,

wherein at least one of said image pickup device, said optical surface which has no axis of rotational symmetry ~~is rotationally asymmetrical with regard to the optical axis~~ is a free curved surface.

95. (Currently Amended) The optical ~~device~~ apparatus according to any one of claims 84 through 89, further comprising:

a diffractive optical element.

96. (Withdrawn) An optical device comprising:

a substrate,

wherein rays pass in the vicinity of a surface of said substrate and an electronic part is disposed on or in the vicinity of said substrate.

97. (Withdrawn) An optical device comprising:

a transparent substrate,

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wherein rays pass through said transparent substrate or in the vicinity of a surface of said substrate and an electronic part is disposed on or in the vicinity of said transparent substrate.

- 98. (Withdrawn) The optical device according to claim 96 or 97, comprising:
an image pickup device.
- 99. (Withdrawn) The optical device according to claim 96 or 97, comprising:
a telephone device.
- 100. (Withdrawn) The optical device according to claim 96 or 97, comprising:
an optical element which has a variable optical characteristic.
- 101. (Withdrawn) The optical device according to claim 96 or 97, comprising:
an optical surface which is rotationally asymmetrical with regard to an optical axis.
- 102. (Withdrawn) The optical device according to claim 96 or 97, comprising:
a folded optical axis.